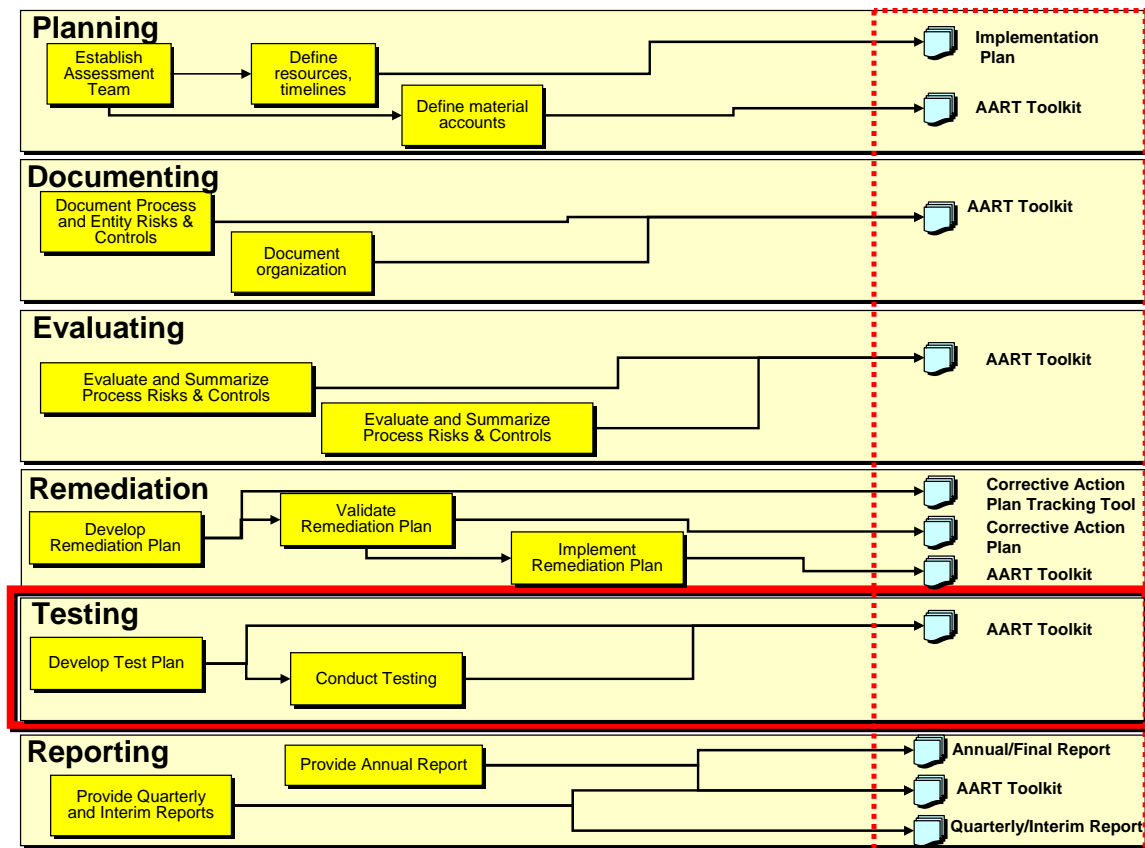




## Quick Start Guide 4 – Testing



Purpose	<ul style="list-style-type: none"> <li>• Validate the effectiveness of the controls through testing.</li> </ul>
Key Activities	<ul style="list-style-type: none"> <li>• Develop Test Plan</li> <li>• Execute Test Plan</li> <li>• Assess Test Results</li> </ul>
Required Templates	<ul style="list-style-type: none"> <li>• AART Toolkit</li> </ul>



# Quick Start Guide 4 – Testing

Document Legend	
★	Professional Judgment
STOP	Required
NOTE	Note
TIP	Tip

## PROCEDURES



The Evaluating phase has been completed.

The steps for testing all the Process and Entity Controls are identical.

### A. Determine the Scope of Testing

1. Open the AART Toolkit and navigate to the Test worksheets: PCS-Test and ECS-Test.

Figure 1<sup>1</sup>

<b>AART: PCS Test</b>			<b>3.0</b>	
<b>Site</b>			LLNL	
<b>Attester</b>			Dean Childs	
<b>Implementer</b>				
<b>Date Updated</b>				
</				



The ECS-Test and PCS-Test worksheets were automatically populated by the associated ECS-Assess or PCS-Assess worksheets during the Evaluation Phase based on the table below.

#### ECS-Test

- ⇒ Area
- ⇒ Sub- Category
- ⇒ Controls
- ⇒ Test Priority

#### PCS-Test

- ⇒ Processes
- ⇒ Sub-Processes
- ⇒ Controls
- ⇒ Test Priority

<sup>1</sup> Most screen shots reference the PCS-Assess Worksheet, though the columns are the same for both PCS and ECS-Assess Worksheets



## Quick Start Guide 4 – Testing

Document Legend	
	Professional Judgment
	Required
	Note
	Tip



Due to limitations in MS Excel, the automatically populated data may not be totally visible until a cell in the row is accessed.

2. Review the Controls that require testing to determine the scope of testing. In order to accurately assess the scope of testing, review each relevant worksheet.



In the Test worksheet, Controls are identified by a red, yellow or green Test Priority. All Controls that require remediation prior to testing are identified by the "REM" status in the **Test Priority** column.

Figure 2

Figure 2

<b>AART: PCS Test</b>		<b>VERSIONS</b> 3.0	
<b>Site</b>	LLNL		
<b>Attester</b>	Dean Childs		
<b>Implementer</b>			
<b>Date Updated</b>			



The **Test Priority** is calculated based on the following criteria:

- ⇒ Risk Assessment
- ⇒ Automation
- ⇒ Frequency

For example, a High Risk sub-process that is manual and only occurs annually will be rated with a Very High (VH) **Test Priority**.



## Quick Start Guide 4 – Testing

Document Legend	
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	Note
	Tip

### B. Develop Testing Plan



*The proposed Test Priority should only be used as a guide when developing the test plan as other factors may affect the prioritization.*

1. Based on a risk based testing approach (see CFO Council Implementation Guide for details), prioritize the testing of Controls.

The **Test Priority** ratings can provide guidance of how to prioritize testing of controls based on the amount of Risk of each sub-process/sub-category.



*See section A.2 for details of how the test priority is determined.*

2. Identify the testing cycle for each Control.
3. Determine if any testing has recently been performed that may satisfy the A-123 requirements for selected controls. If acceptable testing has been performed within 12 months of the assurance date (and no significant system, process or control changes have taken place) for specific controls, you may use the preexisting test results to satisfy A-123 test requirements and document that testing as described in the following steps.



*Sites/Field Offices/LPSOs may utilize testing performed as part of internal or external reviews and/or audits (e.g. FFMIA, FMFIA, SAS-70, IG/GAO audits). However, these tests must **satisfy the requirements** as defined in the CFO Council Implementation Guide.*

*Sites may not utilize financial statement audits as a basis in determining that controls are operating effectively.*

4. Identify and record the most effective **type of test** for each Control.



There are four basic test types that can be used to test entity and process controls (see the CFO Council Implementation Guide for additional information).

- ⇒ **Inquiry** – asking people if certain controls are in place and functioning
- ⇒ **Inspection** – looking at evidence of a given control procedure
- ⇒ **Observation** – observing actual controls in operation
- ⇒ **Re-performing** – re-performing a given control procedure.

From a standpoint of sufficiency of evidence, Inquiry provides the weakest evidence while Re-performing provides the strongest evidence. In addition a single test may cover more than one sub-process and control.







## Quick Start Guide 4 – Testing

Document Legend	
★	Professional Judgment
STOP	Required
📝	Note
💡	Tip

- Record the universe of items, transactions, etc. from which the testing sample will be selected.

Figure 5

AART: PCS Test		3.0	
Site	LLNL		
Attester	Dean Childs		
Implementer			
Date Updated			

Processes	Sub Processes	Controls	Test Plan	Test Type	Test Description	Univ	Star	Te	Fall	%	Fall	T	Date Test
			Lo	Ins									Con
Acquisition	Create Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Prepopulated table of authorized amounts is checked.	Lo	Ins	Validate table of amounts being checked with policies.	3500							
Acquisition	Approve Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Several levels of approvals are required, therefore the likelihood of this occurrence is low.	M	Ins	Validate workflow setup and separation of duties.	3500							
Acquisition	Internal Sourcing	Internal sourcing is approved by supervisor in sourcing and manager of department requesting goods and/or services.	M	Ins	Validate source documents for approval.	3500							

Site AART / Rollup AART / ECS-Assess / ECS-Test / PCS-Assess / PCS-Test / Assessment Team / Field Office - Site



Refer to Financial Audit Manual (FAM) for sampling guidance.

- Determine the Sample Size and enter the value in the **# of Sample** column.



A good resource for tools and applications to determine sample sizes and testing procedures may be internal auditing groups.

Figure 6

AART: PCS Test		3.0	
Site	LLNL		
Attester	Dean Childs		
Implementer			
Date Updated			

Processes	Sub Processes	Controls	Test Plan	Test Type	Test Description	Univ	Star	Te	Fall	%	Fall	T	Date Test
			Lo	Ins									Con
Acquisition	Create Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Prepopulated table of authorized amounts is checked.	Lo	Ins	Validate table of amounts being checked with policies.	3500	100						
Acquisition	Approve Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Several levels of approvals are required, therefore the likelihood of this occurrence is low.	M	Ins	Validate workflow setup and separation of duties.	3500	100	35					
Acquisition	Internal Sourcing	Internal sourcing is approved by supervisor in sourcing and manager of department requesting goods and/or services.	M	Ins	Validate source documents for approval.	3500	100						

Site AART / Rollup AART / ECS-Assess / ECS-Test / PCS-Assess / PCS-Test / Assessment Team / Field Office - Site



## Quick Start Guide 4 – Testing

Document Legend	
	Professional Judgment
	Required
	Note
	Tip

- The percent of universe will automatically be calculated in the **% Tested** column.

Figure 7

AART: PCS Test												
Site		LLNL										
Attester		Dean Childs										
Implementer												
Date Updated												
Processes	Sub Processes	Controls	Test Plan	Test Type	Test Description	# of Units	# of Samples	% Tested	# of Tasks	% Failed	T	Date Test Completed
Acquisition	Create Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Prepopulated table of authorized amounts is checked.	Lo	Ins	Validate table of amounts being checked with policies.	3500	100	3%				
Acquisition	Approve Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Several levels of approvals are required, therefore the likelihood of this occurrence is low.	M	Ins	Validate workflow setup and separation of duties.	3500	100	3%				
Acquisition	Internal Sourcing	Internal sourcing is approved by supervisor in sourcing and manager of department requesting goods and/or services.	M	Ins	Validate source documents for approval.	3500	100	3%				
◀ ▶ ⏪ ⏩ Site AART / Rollup AART / FCS-Assess / FCS-Test / PCS-Assess / PCS-Test / Assessment Team / Field Office - Site												

### C. Execute Testing Plan

- Complete testing based on the detailed plans.
- Enter the date on which the applicable test was completed in the **Date Test Completed** column of the PCS and ECS Test worksheets.

Figure 8

AART: PCS Test		3.0											
Site		LLNL											
Attester		Dean Childs											
Implementer													
Date Updated													
Processes	Sub Processes	Controls	Test Plan	Test Type	Test Description	# of Univ	# of Sar	% Tested	% Fail	% Pass	Date Test Completed	Criteria for Sample Used for Testing & Results	Supporting Documentation (where documentation is filed)
Acquisition	Create Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Prepopulated table of authorized amounts is checked.	Lo	Ins	Validate table of amounts being checked with policies.	3500	100	3%			02/22/06		ALB Server: DCOMB Compliance Test Plan
Acquisition	Approve Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Several levels of approvals are required, therefore the likelihood of this occurrence is low.	M	Ins	Validate workflow setup and separation of duties.	3500	100	3%					
Acquisition	Internal Sourcing	Internal sourcing is approved by supervisor in sourcing and manager	M	Ins	Validate source documents for approval.	3500	100	3%					
Site AART / Rollup AART / FCS Assess / FCS Test / PCS Assess PCS Test / Assessment Team / Field Office - Site Acronyms /													



## Quick Start Guide 4 – Testing

Document Legend	
★	Professional Judgment
STOP	Required
NOTE	Note
TIP	Tip

- Once the tests are completed, record the number of failures in the **# of failures** column.

Figure 9

AART: PCS Test		3.0														
Site	LLNL															
Attester	Dean Childs															
Implementer																
Date Updated																
Processes	Sub Processes	Controls	Test ID	Type	Test Description	# of Uniq	# of Ser	% Pass	% Fail	Date Test	Criteria for Sample Used for Testing & Results	Supporting Documentation (where documentation is filed)				
Acquisition	Create Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Prepopulated table of authorized amounts is checked.	10	Ins	Validate table of amounts being checked with policies.	3500	100	3%	10%	02/22/08		ALB Server: DQMB Compliance Test Plan				
Acquisition	Approve Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Several levels of approvals are required, therefore the likelihood of this occurrence is low.	M	Ins	Validate workflow setup and separation of duties.	3500	100	3%	2%							
Acquisition	Internal Sourcing	Internal sourcing is approved by supervisor in sourcing and manager of department requesting goods and/or services.	M	Ins	Validate source documents for approval.	3500	100	3%	50%							
Site AART / Rollup AART / ECS-Assess / ECS-Test / PCS-Assess / PCS-Test / Assessment Team / Field Office - Site Acronyms																

- The percentage of failure will be automatically calculated in the **% Failure** column.

Figure 10

AART: PCS Test		3.0										
Site	LLNL											
Attester	Dean Childs											
Implementer												
Date Updated												
Processes	Sub Processes	Controls	Test ID	Type	Test Description	# of Uniq	# of Ser	% Pass	% Fail	Date Test Con	Criteria for Sample Used for Testing & Results	Supporting Documentation (where documentation is filed)
Acquisition	Create Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Prepopulated table of authorized amounts is checked.	10	Ins	Validate table of amounts being checked with policies.	3500	100	3%	10%	02/22/08		ALB Server: DQMB Compliance Test Plan
Acquisition	Approve Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Several levels of approvals are required, therefore the likelihood of this occurrence is low.	M	Ins	Validate workflow setup and separation of duties.	3500	100	3%	2%			
Acquisition	Internal Sourcing	Internal sourcing is approved by supervisor in sourcing and manager of department requesting goods and/or services.	M	Ins	Validate source documents for approval.	3500	100	3%	50%			
Site AART / Rollup AART / ECS-Assess / ECS-Test / PCS-Assess / PCS-Test / Assessment Team / Field Office - Site Acronyms												





## Quick Start Guide 4 – Testing

Document Legend	
★	Professional Judgment
STOP	Required
NOTE	Note
TIP	Tip

### ★ D. Evaluate Test Results

1. Using professional judgment, determine whether the failure rate is acceptable and whether to pass or fail the control effectiveness. Record the results in the **Test** column of the PCS and ECS Test worksheets.

Figure 12

AART: PCS Test		3.0	
Site	LLNL		
Attester	Dean Childs		
Implementer			
Date Updated			
Processes	Sub Processes	Controls	Test
Acquisition	Create Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Prepopulated table of authorized amounts is checked.	Lo Ins
Acquisition	Approve Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Several levels of approvals are required, therefore the likelihood of this occurrence is low.	M Ins
Acquisition	Internal Sourcing	Internal sourcing is approved by supervisor in sourcing and manager of department requesting goods and/or services.	M Ins
		Test Description	Test Results
		Validate table of amounts being checked with policies.	3500 100 3% 10 10% Pass
		Validate workflow setup and separation of duties.	3500 100 3% 2 2% Pass
		Validate source documents for approval.	3500 100 3% 50 50% Fail
		Criteria for Sample Used for Testing & Results	Supporting Documentation (where documentation is filed)
			ALB Server: D:\OMB Compliance\Test Plan
Site AART / Rollup AART / ECS-Assess / ECS-Test / PCS-Assess / PCS-Test / Assessment Team / Field Office / Site Acronyms			

2. Enter the rationale used to determine sample test criteria and results.

Figure 13

AART: PCS Test		3.0	
Site	LLNL		
Attester	Dean Childs		
Implementer			
Date Updated			
Processes	Sub Processes	Controls	Test
Acquisition	Create Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Prepopulated table of authorized amounts is checked.	Lo Ins
Acquisition	Approve Requisition	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Several levels of approvals are required, therefore the likelihood of this occurrence is low.	M Ins
Acquisition	Internal Sourcing	Internal sourcing is approved by supervisor in sourcing and manager of department requesting goods and/or services.	M Ins
		Test Description	Test Results
		Validate table of amounts being checked with policies.	3500 100 3% 10 10% Pass
		Validate workflow setup and separation of duties.	3500 100 3% 2 2% Pass
		Validate source documents for approval.	3500 100 3% 50 50% Fail
		Criteria for Sample Used for Testing & Results	Supporting Documentation (where documentation is filed)
			ALB Server: D:\OMB Compliance\Test Plan
		Failure rate is too high for the sub-process.	ALB Server: D:\OMB Compliance\Test Plan
Site AART / Rollup AART / ECS-Assess / ECS-Test / PCS-Assess / PCS-Test / Assessment Team / Field Office / Site Acronyms			



## Quick Start Guide 4 – Testing

Document Legend	
★	Professional Judgment
STOP	Required
NOTE	Note
TIP	Tip

### ★ E. Re-Evaluate Assessments based on Test Results

1. Return to the Assess worksheets (PCS and ECS) and re-evaluate the summaries based on the test results.

Figure 14

AART: PCS Assess			Version: 3.0				General Ledger Mgmt				PPP			Travel				
Site	LLNL				B2C	Y	Funds Mgmt		5			Y	Revenue					
Attester	Dean Childs							FBWT						Receivable Mgmt				
Implementer	Ard Geller					Y	Cost Mgmt							Project Cost Mgmt		6		
Date Updated	February 22, 2006							Insurance						Y	Property Mgmt			
Insert Row				Delete Row				Grants						Y	Seized Property Mgmt			
								Loans							Human Resources			
					PPP	Y	Acquisition		6					Payroll		6		
						Y	Inventory Mgmt		5					Benefits				
						Y	Payable Mgmt		1									
Process Cyl	Processes	Sub Processes	Impact	Risk Assess	Controls			Cntrl Type	Cntrl Freq	Control Design Effect	Test	Control Inefficiency	Remediation Plan	Evaluation Rationale / Comments			St (wh)	
P2P	Acquisition	Create Requisition	M	M	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Prepopulated table of authorized amounts is checked.			Aut	R	5	Pass	No		Automation is designed well and is secure.			ALB Serv OMB A123	
P2P	Acquisition	Approve Requisition	M	M	Automatic workflow approval process in place. Requisition automatically routed to next level in organization. Several levels of approvals are required, therefore the likelihood of this occurrence is low.			Aut	R	5	Pass	No						
P2P	Acquisition	Internal Sourcing	M	M	Internal sourcing is approved by supervisor in sourcing and manager of department requesting goods and/or services.			Man	R	5	Fail	yes	yes					
Site AART / Rollup AA / ECS-Assess / PCS-Assess / PCS-Test / Assessment Team / Field Office - Site Acronyms																		





## Quick Start Guide 4 – Testing

Document Legend	
★	Professional Judgment
STOP	Required
📝	Note
💡	Tip

### F. Update the Rollup AART



#### REQUIREMENTS

This step must be performed by the Field Office or LPSO Assessment Team lead.

*Field Offices and LPSOs have different processes for FY 2006.  
Starting in FY2007 the rollup process will be the same*

#### FIELD OFFICE ONLY

1. Starting in cell Y9 of the Site AART, copy all of the automatically populated ratings for the accounts and process cycles. (Cells Y9 through AE51)

Figure 16

Y9		A		B		C		F		G		J		M		P		S		Y		Z		AA		AB		AC		AD		AE	
1	AART: Rollup							VERSION 3.0		Kansas City-Rollup							Kansas City																
2	Kansas City							Kansas City							Kansas City																		
3	Site KC							Site-KC							Site-KC																		
4	Attester							Dennis Martinez																									
5	Overall Assurance							6-Control Design Eff																									
7	Material Account							Acct Status							MAD	EC	B2C	P2P	Q2C	P2A	ERM	MAD	EC	B2C	P2P	Q2C	P2A	ERM					
8	Balance Sheet																																
9	Intragovernmental Fund Balance with Treasury																																
10	Intragovernmental Investment																																
11	Intragovernmental Regulatory Assets																																
12	Accounts Receivable, Net																																
13	Nuclear Materials							0																									
14	Strategic Petroleum and Northeast Home Heating Oil Reserve																																
15	General Property, Plant and Equipment							0																									
16	Regulatory Assets																																
17	Other non-intragovernmental assets																																
18	Intragovernmental debt																																
19	Intragovernmental appropriated capital owned																																
20	Accounts Payable							0																									
21	Debt																																
22	Deferred Revenue and other credits																																
23	Environmental Liabilities																																



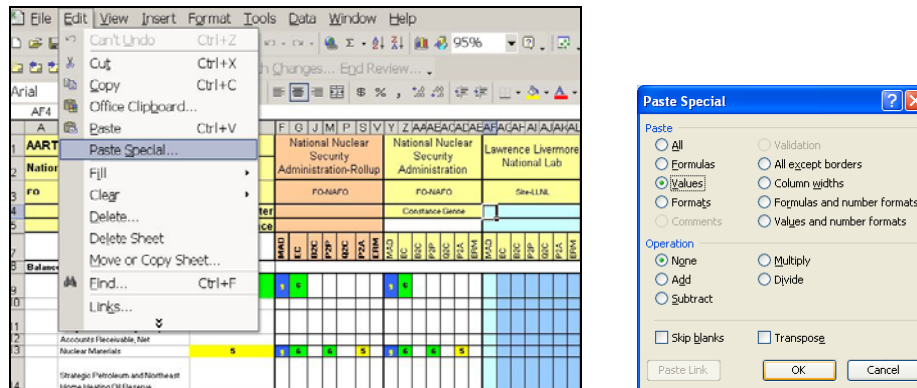


## Quick Start Guide 4 – Testing

Document Legend	
	Professional Judgment
	Required
	Note
	Tip

3. Paste Special the results as follows: Go to Edit -> Paste Special and select the values radio button. Click OK.

**Figure 18**



4. Repeat steps 1-3 for the Rollup Overall rating
  - a. Copy cells Y5 through AE5 from the Site AART Rollup.
  - b. Navigate to the appropriate cell block for that Site in row 5.
  - c. Go to Edit -> Paste Special and select the values radio button.
  - d. Click OK.



## Quick Start Guide 4 – Testing

Document Legend	
★	Professional Judgment
STOP	Required
📝	Note
💡	Tip

### LPSO ONLY

- Starting in cell F9 of the Field Office AART, copy all the automatically populated ratings for the accounts and process cycles. (Cells F9 through V51)

Figure 19

F9																																											
	A	B	C	F	G	J	M	P	S	V	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AV	AW	AX	AY	AZ							
1	AART: Rollup			National Nuclear Security Administration-Rollup									National Nuclear Security Administration									Kansas City				Lawrence Livermore National Lab																	
2	National Nuclear Security Administration																																										
3	FO NAFO			FO-NAFO									FO-NAFO									KC				LLNL																	
4	Attester												E. Dennis Martinez																														
5	Overall Assurance																																										
7	Material Account			Attest Status			MAD	EC	B2C	P2P	Q2C	P2A	ERM	EC	B2C	P2P	Q2C	P2A	ERM	MAD	EC	B2C	P2P	Q2C	P2A	ERM	MAD	EC	B2C	P2P	Q2C	P2A	ERM	MAD	EC	B2C	P2P	Q2C	P2A				
8	Balance Sheet																																										
9	Intragovernmental Treasury																																										
10	Intragovernmental Investment																																										
11	Intragovernmental Regulatory Assets																																										
12	Accounts Receivable, Net																																										
13	Nuclear Materials			0										0						0																							
14	Strategic Petroleum and Northeast Home Heating Oil Reserve																																										
15	General Property, Plant and Equipment			0										0						0																							
16	Regulatory Assets																																										
17	Other non-intragovernmental assets			0																																							
18	Intragovernmental debt																																										
19	Intragovernmental appropriated capital owned																																										
20	Accounts Payable			0										0						0																							
21	Debt																																										
22	Deferred Revenue and other credits			0										0						0																							
23	Environmental Liabilities			0										0						0																							





## Quick Start Guide 4 – Testing

Document Legend	
	Professional Judgment
	Required
	Note
	Tip

8. Repeat steps 1-3 for the Rollup Overall rating
  - a. Copy cells F5 through V5 from the Site AART Rollup.
  - b. Navigate to the appropriate cell block for that Site in row 5.
  - c. Go to Edit -> Paste Special and select the values radio button.
  - d. Click OK.

### ***G. Update the Implementation Plan***

1. Document the results of the testing activities performed
2. Review Implementation Plan for accuracy
3. Make and track necessary changes



*Major changes to the Implementation Plan will need to be reported in the Quarterly Report.*



# Quick Start Guide 4 – Testing

Document Legend	
	Professional Judgment
	Required
	Note
	Tip

## REFERENCES

**See CFO A-123 Website for suggested reading material:**

OMB A-123 Appendix A  
CFO Council Implementation Guide for OMB Circular A-123  
Financial Audit Manual (GAO-01-765G)  
DOE OMB Circular A-123, Appendix A, Implementation Plan  
DOE Interim Guidance for OMB Circular A-123  
FY 2005 Audit Report  
FY 2005 Management Letter

## ADDITIONAL INFORMATION

Refer to the CFO A-123 website which will be updated with latest materials including tools, FAQs and additional reading material.

(<http://www.cfo.doe.gov/progliaison/doeA123/index.htm>)

## DEFINITIONS

Word	Definition
Attester	The person who will be required to affirm the authenticity of information for the LPSO.
Cognizant Secretarial Office (CSO)	Headquarters Elements that provide significant funding to Field Offices overseen by the LPSOs.
Field Office (FO)	Location where the Site Assessment Team manages the A-123 Implementation for its Sites. Only the Field Office provides assurance to the LPSO.
Headquarters Element	Lead Program Secretarial Office or Headquarters Business Program that is affected by the financial reporting requirements of OMB A-123, Appendix A.
Implementer	The person responsible for executing the activities to support the Attester's affirmation.
Lead Program Secretarial Office (LPSO)	Headquarters Element whose cognizance includes those Field Offices that are affected by the financial reporting requirements of OMB A-123, Appendix A. These LPSOs provide oversight activities to Field Offices that directly impact the accounts determined to be material to the Department's financial statements.
Process	The highest level of sub-processes within a process cycle.
Process Cycle	An end-to-end sequence of events consisting of the methods and records used to establish, identify, assemble, analyze, classify, and record transactions. <sup>2</sup>
Site	Unit of a Field Office including the Field Office federal activities and its contractors (both integrated and non-integrated). Predefined by Headquarters.

<sup>2</sup> Adapted from the CFO Council Implementation Guide



## Quick Start Guide 4 – Testing

Document Legend	
★	Professional Judgment
STOP	Required
NOTE	Note
💡	Tip

### NEXT PHASE

